

ESA Earth Observation Multilingual Web Site for Secondary Schools

<http://www.eduspace.esa.int>



- Context:

- A European project, implemented by ESA/ESRIN under the umbrella of EURISY, through co-operation with space agencies and education authorities

- Assets:

- A *Secondary School teacher* was a key member of the web site Implementation Group, and is a member of the Eduspace Operations Team, to ensure site's development according to school requirements.
- The *Eduspace Council of Teachers (ECT)* represents European Secondary School teachers and plays a vital advising and co-operating role in the Eduspace project
- Considered as a *reference tool* for education by international Working Groups

- Introduction to Remote Sensing
- Suitable tools for image processing (*LEOWorks*)
- Huge searchable image archives (*ESA and non-ESA*)
- Documented study cases (*including schools projects*)
- A school network (*it includes a discussion Forum*)
- A helpdesk (*eduspace@esa.int*)
- In-service training of teachers.

To date, it is available in six versions:

English, French, Italian, Spanish, German, Danish (paid for by the Danish Ministry of Education). Portuguese and Dutch are being prepared, Greek TBC. External requests: Romanian and Turkish.

General Subjects 1st Level

- Europe from Space
- Global Change
- Disaster Monitoring
- ...

Europe from Space 2nd Level

- Cities
- The Alps
- Weather
- Landscapes

The Weather of Europe (3rd level)

- Teachers and students do explore and analyse the weather of the day in Europe
- Access to recent weather images
- Case studies showing typical and also extreme weather situations
- Worksheets and exercises

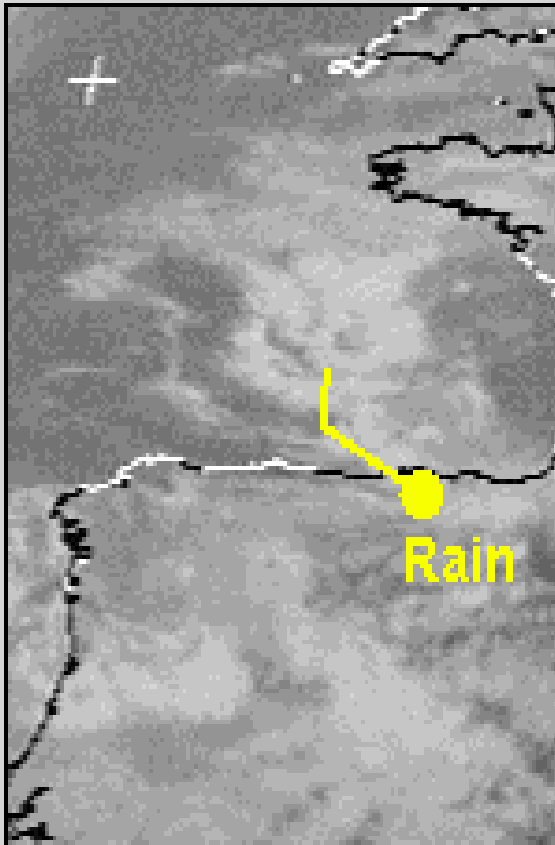
Case Studies (4th level)

- Introduction
- Background
- Exercises
- Links

School inputs visible to everyone



Interactive METEOSAT



Each day at 09.00 UTC the current METEOSAT image covering Europe will be shown at the project site. Students from participating schools observe the weather and upload their observation to the project. Immediately the observations will be showed on top of the satellite image. When may schools participate and upload information the daily METEOSAT image will show the weather throughout Europe. Thereby enabling an interpretation of the satellite image.

Remember than in winter that is 10.00 MET and 11.00 MET during the summer (MET: Middle European Time).

View the archive of [images and observations](#).

I would like to [register my school](#) to join the project



The cover art for LEOWorks software features a dark space background with a satellite in orbit over Earth. The title 'LEOWorks' is rendered in large, glowing orange-outlined letters. Logos for 'eduspace' and 'esa' are in the top corners. Text on the right lists version and credits, while text on the bottom left describes the software's purpose.

*Image processing software
-for educational use-*

LEOWorks

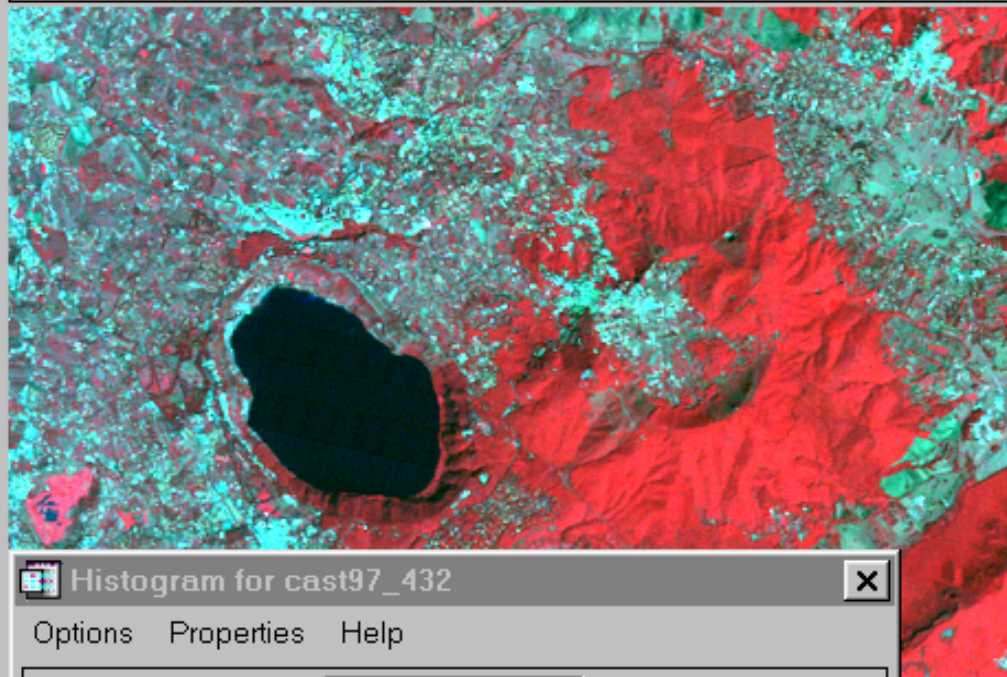
LeoWorks Version 2.0
Design: P. Brøgger Sørensen,
J. Lichtenegger, B. Strömholm
Programming: F. Serban
Copyright & co-sponsorship:
European Space Agency
Romanian Space Agency
Research Systems Inc.

*Learning
with Earth
Observation*



cast97_432.tif [1:1]

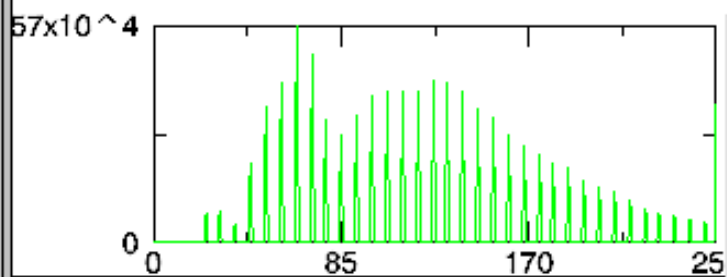
1:1



Histogram for cast97_432

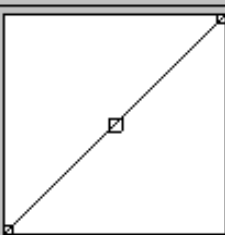
Options Properties Help

Green Channel



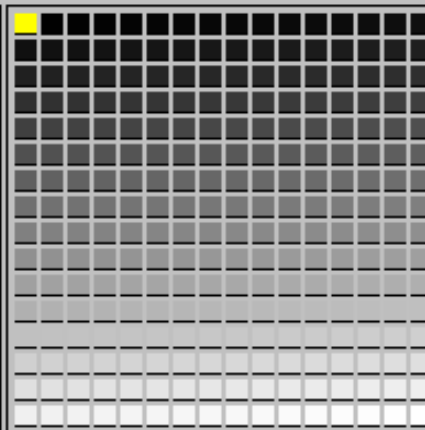
Min: 0	Std Dev: 57.4841	Level: 3
Max: 255	Median: 120	Count: 1413647
Bins Used: 39	Pixels: 413647	Percent: 100
Mean: 125.144	Mean: 125.144	Std Dev: 57.4841

LUT Editor

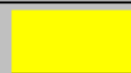


Brightness

Contrast



0



255

Red

255

Green

0

Blue

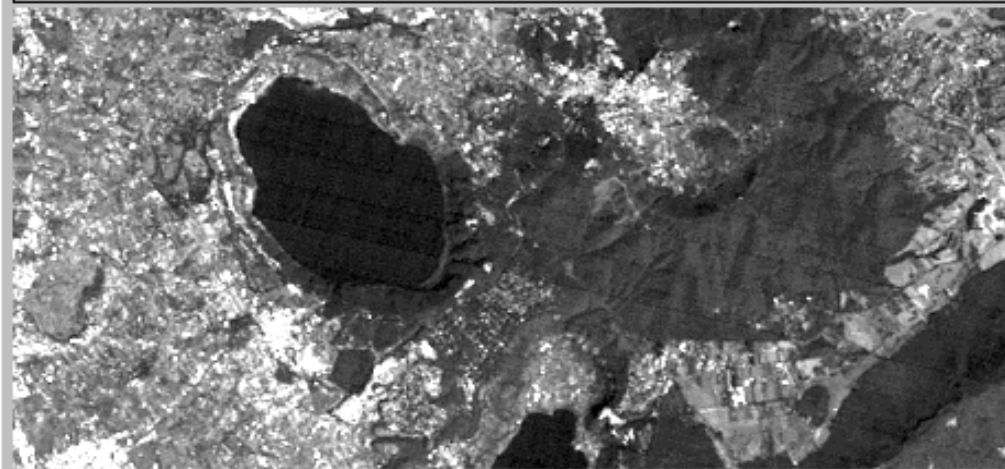
Help

Open Palette

Save Palette

Close

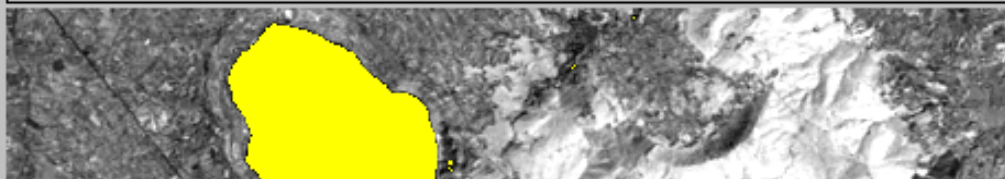
cast97_432[Blue Channel] [1:1]

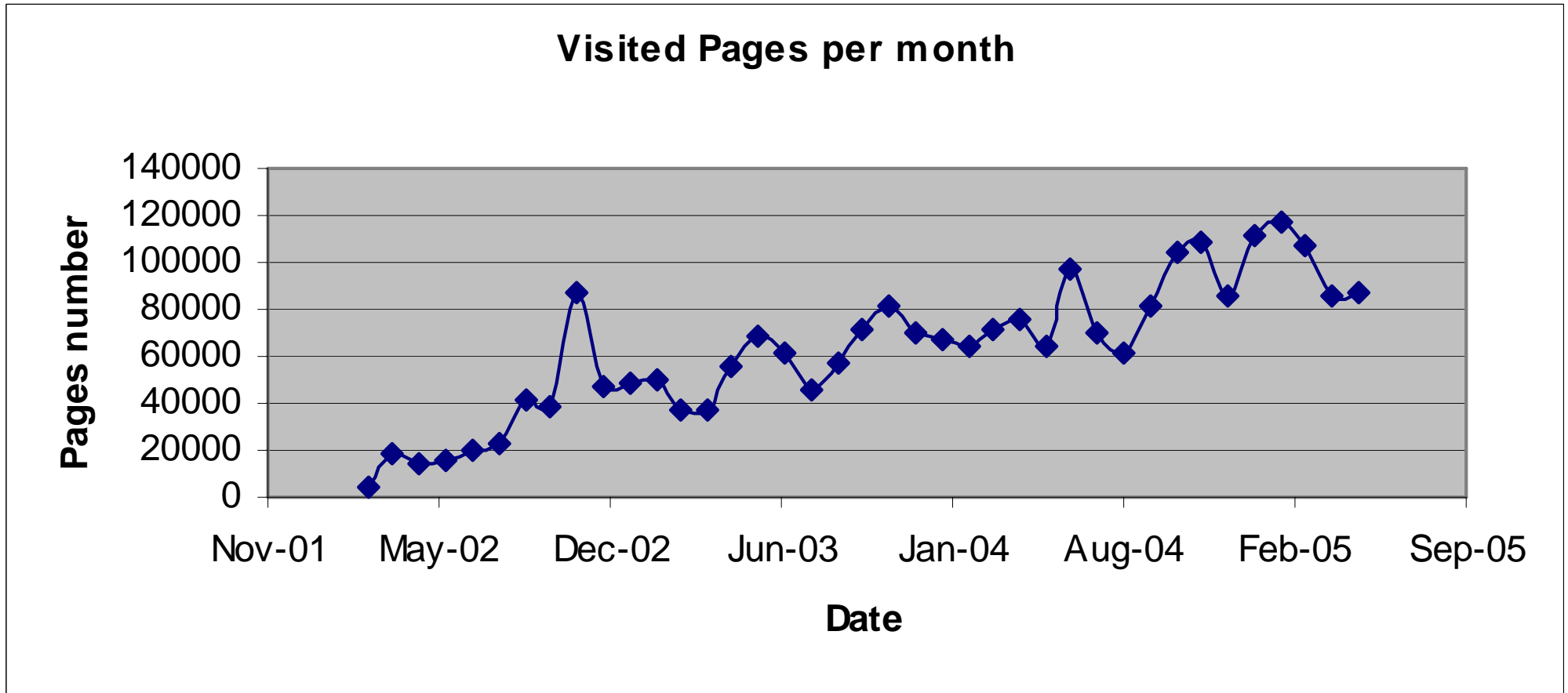


(76,413)→(131)

cast97_432[Red Channel] [1:1]

1:1





NOTE: Low values correspond mostly to school holidays

■ CONAE:

- The Argentinean Commission for Space Activities has asked ESA to allow the use of the Spanish version of Eduspace, in order to achieve the goal of introducing EO to 2 millions students by 2007 (an objective of their National Space Plan).
The project will be carried out as an implementation of the ESA-CONAE MoU and the generated study cases will populate the Eduspace "Latin America from space" module.

■ TIGER:

- LEOWorks, the Eduspace image processing software, has been adapted to the needs of the ESA TIGER initiative and has been distributed free of charge to the TIGER PIs for their exclusive use within their TIGER projects, upon signature of the proper Terms and Conditions form.